IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re Application of:

Maria KORDOWICZ et al.

Serial No.: 10/009,500

Group Art Unit: 1632

Filed: December 11, 2001

Examiner: Unassigned

For:

HYALURONIDASE FROM THE HIRUDINARIA MANILLENSIS, ISOLATION,

PURIFICATION AND RECOMBINANT METHOD OF PRODUCTION

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§ 1.56, 1.97 and 1.98

Assistant Commissioner for Patents Washington, D. C. 20231

Sir:

APR 2 2 2003

This information disclosure statement is made in accordance with 37 C.F.R. \$\$11.550,02970 and 1.98 as follows:

Timing and Fees

\boxtimes	Under 37 C.F.R. § 1.97(b), no fee or statement is required for filing to disclosure statement is filed:				
			three months after the filing date of a national application other than a under § 1.53(d);		
			three months after the actual filing date of the national phase of a PCT ation; OR		
	\boxtimes	before RCE).	the mailing of a first substantive office action (including after filing of an		
			R. § 1.97(c), this information disclosure statement is filed after the periods 7 C.F.R. § 1.97(b), but before the mailing date of:		
			a final rejection under 37 C.F.R. 1.113;		
			termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P § 609(B)(2); OR		
			a notice of allowance under 37 C.F.R. § 1.311; and		

		is acco	ompanied by:
			the statement as specified in 37 C.F.R. § 1.97(e) set out below; OR
			a check covering the fee of \$180.00 under 37 C.F.R. § 1.17(p).
			R. § 1.97(d), this information disclosure statement is filed after the mailing lowing actions which have not been withdrawn:
			a final action under 37 C.F.R. § 1.113;
			termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P § 609(B)(2): OR
			a notice of allowance under 37 C.F.R. § 1.311;
	AND i	is filed o	on or before payment of the issue fee; AND is accompanied by:
			the statement as specified in 37 C.F.R. § 1.97(e) as set forth below, and the fee of \$180.00 under 37 C.F.R. § 1.17(p).
Staten	nents Uı	nder 37	C.F.R. 1.97(e)
			Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application having a mailing date not more than three months prior to the filing date of this information disclosure statement; or
			No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the undersigned attorney after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing date of the information disclosure statement.
Cited	Materia	<u>ls</u>	
		ancest	s of materials listed but not attached were cited in benefit (35 U.S.C. § 120) or application Serial No, on Form 892 by the Examiner and/or Form by the applicant; see 37 C.F.R. § 1.98(d).
	\boxtimes	_	s of materials listed but not attached were cited in an international search dated November 15, 2000.
		Copies	s of the materials listed are attached (except for the foregoing).

Non-Eng	glish I	anguage References
		The reference(s): in the English-language is (are) indicated by commercial data bases to correspond to the non-English reference(s): , respectively.
		(An) English-language translation(s) of the references: is (are) provided.
		A commercial English-language abstract of reference(s) is (are) provided.
	\leq	An English-language search report or equivalent paper from a foreign patent office is provided indicating the relevance of the cited reference(s).
		A foreign-language search report from a foreign patent office is provided, and pertinent parts are translated substantively below:
		X = document of particular relevance when it is taken alone Y = document of particular relevance when it is combined with another such document
		A = document defining the general state of the art
		O = non-written disclosure P = intercalated document
		P = intercalated document $\Gamma = $ document cited to understand the theory or principle underlying the
		invention
		E = patent document which has the benefit of a date earlier than the filing date and which was published only on or after this filing date
		D = cited in the application
		L = cited for another reason
		& = publication of member of same patent family
[Translation of other relevant information on foreign search report
Other In	forma	i <u>on</u>
Paymen	t of Fe	es Due (If Any):
	A chec	c for \$ covering the fee identified above is attached.
	Please	charge to Deposit Account No. 13-3402 \$ for the fee identified above.

The Commissioner is hereby authorized to charge or credit any overpayment to Deposit Account #13-3402, two copies of this paper are attached for this purpose.

Respectfully submitted,

Anthony J. Zelano, Reg. No. 27,969 Attorney/Agent for Applicants

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Attorney Docket No.: MERCK-2332

Date: April 21, 2003

AJZ:jr

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PTO/SB/08A (08-00)

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known						
Application Number	10/009.500					
Filing Date	December 11, 2001					
First Named Inventor	Maria KORDOWICZ et al.					
Group Art Unit	1632					
Examiner Name	Unassigned					
Attorney Docket Number	MERCK-2332					

				U.S. PATENT DOCUMENTS		
Examiner Initials *	Cite No.1	U.S. Patent Doc Kind (Number (if kno	Code ²	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	
		5,827,721	Α	Formby et al.	10/27/1998	
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FOREIGN PATENT DOCUMENTS								
Examiner	Cite	For	eign Patent Docur	nent	Name of Patentee	Date of Publication of	Pages, Columns, Lines, Where Relevant	
Initials*	No.1	Office ³		nd Code ⁵ if known)	or Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	Т ₆
		EP	0 193330	Α		09/03/1986		
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Examiner Signature	Date Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark hee if English language Translation is attached.

PR	2	1	2003 Places type a plus sign (+) inside this box	+
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Substitute for form 1449A/PTO

PTO/SR/08A (08-00)

Approved for use through 10/31/2002, OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Complete if Known

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Application Number 10/009,500 Filing Date December 11, 2001 First Named Inventor Maria KORDOWICZ et al. Group Art Unit 1632 **Examiner Name** Unassigned

MERCK-2332

(use as many sheets as necessary) of 2 Sheet Attorney Docket Number

NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of Cite T² Examiner the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue Initials ' No. number(s), publisher, city and/or country where published. C.P. JONES and R.T. SAWYER: "Heparin Inhibits Mammalian, But Not Leech Hyaluronidase," THROMBIN RESEARCH, Vol. 55, No. 6, 1989, pp. 791-796, XP000953413 TECH CENTER 1600/2900

Examiner	Date	
Signature	Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY To: NOTIFICATION OF TRANSMITTAL OF MERCK PATENT GMBH THE INTERNATIONAL SEARCH REPORT D-64271 Darmstadt OR THE DECLARATION PAT GERMANY 9 5. NOV. 2000 (PCT Rule 44.1) abl. zahlen 🗆 zurück an Rücksprache erbeten Date of mailing (day/month/year) 15/11/2000 Applicant's or agent's file reference FOR FURTHER ACTION See paragraphs 1 and 4 below 0099216-Bzmi International application No. International filing date (day/month/year) 06/06/2000 PCT/EP 00/05181 Applicant MERCK PATENT GMBH The applicant is hereby notified that the International Search Report has been established and is transmitted herewith. Filling of amendments and statement under Article 19: The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46): The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet. Where? Directly to the International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Fascimile No.: (41-22) 740.14.35 For more detailed instructions, see the notes on the accompanying sheet. The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that: the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices. no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made. 4. Further action(s): The applicant is reminded of the following: Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication. Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later). Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II. Name and mailing address of the International Searching Authority Authorized officer

Andria Overbeeke-Siepkes

NL-2280 HV Rijswijk

Fax: (+31-70) 340-3016

European Patent Office, P.B. 5818 Patentlaan 2

Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been its filed, see below.

Haw?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER see Notification of (Form PCT/ISA/2	of Transmittal of International Search Report 20) as well as, where applicable, item 5 below.
0099216-Bzmi International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
PCT/EP 00/05181	06/06/2000	12/06/1999
Applicant		
MERCK PATENT GMBH		
This International Search Report has been according to Article 18. A copy is being tra	n prepared by this International Searching Auth Insmitted to the International Bureau.	nority and is transmitted to the applicant
This International Search Report consists X It is also accompanied by	of a total of3 sheets. a copy of each prior art document cited in this	report.
Basis of the report		
a. With regard to the language, the language in which it was filed, unl	international search was carried out on the bases otherwise indicated under this item.	sis of the international application in the
the international search w Authority (Rule 23.1(b)).	as carried out on the basis of a translation of t	he international application furnished to this
b. With regard to any nucleotide an was carried out on the basis of the		nternational application, the international search
TOTAL STATE OF THE	nal application in written form.	
filed together with the inte	rnational application in computer readable for	n.
furnished subsequently to	this Authority in written form.	
	this Authority in computer readble form.	
	sequently furnished written sequence listing d s filed has been furnished.	loes not go beyond the disclosure in the
the statement that the info furnished	ormation recorded in computer readable form i	s identical to the written sequence listing has been
2. Certain claims were fou	nd unsearchable (See Box I).	
3. Unity-of Invention is lac	king (see Box II).	
4. With regard to the title,		
the text is approved as su	bmitted by the applicant.	
the text has been establis	hed by this Authority to read as follows:	
5. With regard to the abstract,		
	bmitted by the applicant. hed, according to Rule 38.2(b), by this Authori adate of mailing of this international search rep	
6. The figure of the drawings to be publ	ished with the abstract is Figure No.	
as suggested by the appli	cant.	None of the figures.
because the applicant fail	ed to suggest a figure.	
because this figure better	characterizes the invention.	

International application No.

INTERNATIONAL SEARCH REPORT

PCT/EP 00/05181

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

Line 02 in the text, please remove the word "novel".

Line 03 in the text, please remove the word "new".

INTERNATIONAL SEARCH REPORT

International Application No PCT/EP 00/05181

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C12N15/52 C12N C12N9/26A61K38/43 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 C12N A61K Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) BIOSIS, EMBASE, CHEM ABS Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. Χ EP 0 193 330 A (BIOPHARM LTD) 1-4,6,8,3 September 1986 (1986-09-03) 9,16,17, cited in the application 20 the whole document Α JONES C. P. AND SAWYER R. T.: "Heparin 1 - 20inhibits mammalian, but not leech hyaluronidase." THROMBIN RESEARCH, vol. 55, no. 6, 1989, pages 791-796, XP000953413 the whole document US 5 827 721 A (FORMBY BENT ET AL) Α 27 October 1998 (1998-10-27) column 6, line 24 - line 61; example 1 Further documents are listed in the continuation of box C. Patent family members are listed in annex. X Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not considered to be of particular relevance cited to understand the principle or theory underlying the invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the "O" document referring to an oral disclosure, use, exhibition or document is combined with one or more other such documents, such combination being obvious to a person skilled other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 1 November 2000 15/11/2000 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl. Mandl, B Fax: (+31-70) 340-3016

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT/EP 00/05181

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0193330 A	03-09-1986	DE 3688710 A DE 3688710 T US 4820516 A	26-08-1993 18-11-1993 11-04-1989
US 5827721 A	27-10-1998	US 5747027 A WO 9631596 A	05-05-1998 10-10-1996